



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/353,270	07/14/1999	SUSUMU KUSAKABE	450100-4984	3256

20999 7590 03/31/2004  
FROMMER LAWRENCE & HAUG  
745 FIFTH AVENUE- 10TH FL.  
NEW YORK, NY 10151

EXAMINER

HAMILTON, MONPLAISIR G

ART UNIT	PAPER NUMBER
----------	--------------

2135

DATE MAILED: 03/31/2004

15

Please find below and/or attached an Office communication concerning this application or proceeding.

86

# Office Action Summary

Application No.

09/353,270

Applicant(s)

KUSAKABE ET AL. 

Examiner

Monplaisir G Hamilton

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 39-42, 44-49, 51, 52 and 54 is/are pending in the application.
- 4a) Of the above claim(s) 1-38, 43, 50 and 53 are cancelled.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 39-42, 44-49, 51, 52 and 54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. The communication filed on 3/12/04 amended Claims 39, 44, 51, 52 and 54 and cancelled Claims 43, 50 and 53. Claims 39-42, 44-49, 51-52 and 54 remain for examination.

#### ***Information Disclosure Statement***

2. The information disclosed in Handbuch der Chipkarent, XP-002176035, XP-002176034 by Rankl and Effing, and EP0847031 issued to Lohmer et al, fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each publication listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

#### ***Response to Arguments***

3. Applicant's arguments with respect to Claims 39-42, 44-49, 51-52 and 54 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Allowable Subject Matter***

4. The indicated allowability of Claims 43 and 50 is withdrawn in view of the newly discovered references: US 4742215 issued to Daughters et al and US 5988510 issued to Tuttle et al.

Art Unit: 2135

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 39-42, 44-49, 51-52 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4742215 issued to Daughters et al, herein referred to as Daughters in view of US 5988510 issued to Tuttle et al, herein referred to as Tuttle.

Referring to Claims 39 and 52:

Daughters discloses an information processing device for supplying management information to a data storage device, said information processing device comprising:

forming means for forming management information that manages a storage area in the data storage device in a layered structure, said management information pertaining to a definition area to be formed in the data storage device, said definition area being used to define storage areas of the data storage device for use in providing services (col 3, lines 20-30);

communication means for communicating the encrypted management information to said data storage device, to enable said definition area to be formed therein based upon said management information (col 3, lines 10-55); and

means for generating a check code to check whether the management information has been tampered with or not, wherein said encrypting means encrypts the check code together with the management information (col 9, lines 25-45).

Art Unit: 2135

Daughters does not explicitly disclose “encrypting means for encrypting said management information, said encrypting means encrypting a lower layer of the management information by using a key contained in an upper layer of the management information”.

Tuttle discloses encrypting means for encrypting said management information, said encrypting means encrypting a lower layer of the management information by using a key contained in an upper layer of the management information (col 6, lines 35-60).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Daughter such that the management information is encrypted. One of ordinary skill in the art would have been motivated to do this because it would prevent unauthorized reading of the storage and private information (col 6, lines 5-20).

Referring to Claim 40:

Daughters in view of Tuttle disclose the limitations of Claim 39 above. Tuttle further discloses said communication means is configured to transmit the encrypted management information through a predetermined transmission medium (col 6, lines 30-40).

Referring to Claim 41:

Daughters in view of Tuttle disclose the limitations of Claim 39 above. Daughters further discloses said forming means forms said management information such that the management information contains a storage area identifying code to be allocated to a storage area of the data storage device to be managed, and is used to identify said storage area (col 9, lines 55-65 and col 10, lines 25-55).

Art Unit: 2135

Referring to Claim 42:

Daughters in view of Tuttle disclose the limitations of Claim 39 above. Daughters further discloses said forming means forms said management information such that said management information contains information on the amount of empty capacity of said storage area to be managed (col 13, line 55-col 14, line 5).

Referring to Claims 44 and 54:

Daughters disclose a data storage device comprising: receiving means for receiving encrypted management information from an external equipment, said management information pertaining to a definition area to be formed in the data storage device, said definition area being used to define storage areas of the data storage device for use in providing services, wherein said storage areas are managed with management information in a layer structure and containing a key (col 9, line 55-col 10, line 15);

management information storage means for storing the management information; and management means for forming the definition area defining said storage areas in a layered structure, and also managing the storage areas, on the basis of the received management information (col 10, lines 1-22), and

operation means for operating on a check code to check whether the management information has been tampered with or not, wherein said decrypting means decrypts the check code together with the management information (col 9, lines 40-50).

Tuttle discloses decrypting means for decrypting a lower layer of the encrypted management information by using said key, said key being contained in an upper layer of the management information; data storage means for storing data to supply predetermined services, wherein access to a storage area of said data storage means is provided by said key (col 6, lines 10-20);

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Daughter such that the management information is decrypted. One of ordinary skill in

Art Unit: 2135

the art would have been motivated to do this because it would prevent unauthorized reading of the storage and private information (col 6, lines 5-20).

Referring to Claim 45:

Daughters in view of Tuttle disclose the limitations of Claim 44 above. Tuttle further discloses said receiving means provides access to said external equipment through a predetermined transmission medium (col 6, lines 30-40).

Referring to Claim 46:

Daughters in view of Tuttle disclose the limitations of Claim 44 above. Daughters further discloses said management means is arranged to manage said storage areas in response to an instruction from said external equipment (col 3, lines 15-55).

Referring to Claim 47:

Daughters in view of Tuttle disclose the limitations of Claim 44 above. Tuttle further discloses said receiving means is arranged to perform the communications with said external equipment in a contact or non-contact state (col 5, lines 40-65; col 6, line 65-col 7, line 10).

Referring to Claim 48:

Daughters in view of Tuttle disclose the limitations of Claim 44 above. Daughters further discloses said management information contains a storage area identifying code which can be allocated to said storage area to be managed and is used to identity said storage area (col 14, lines 25-60).

Art Unit: 2135

Referring to Claim 49:

Daughters in view of Tuttle disclose the limitations of Claim 44 above. Daughters further disclose said management information contains information on the amount of an empty capacity of said storage area to be managed (col 13, line 65-col 14, line 5).

Referring to Claim 51:

Daughters discloses an information processing system comprising a data storage device and an information processing device, said information processing device comprising: forming means for forming management information that manages a storage area in the data storage device in a layered structure (col 3, lines 20-60);

and communication means for communicating the encrypted management information to said data storage device, said data storage device comprising: receiving means for receiving encrypted management information from said information processing device (col 8, lines 20-35; col 10, lines 25-55);

data storage means for storing data to supply a predetermined service, wherein access to a storage area of said data storage means is provided by said key; management information storage means for storing said management information (col 10, lines 15-25); and

management means for forming a definition area defining the storage areas of said data storage means in a layer structure, and also managing the storage areas, on the basis of the received management information (col 10, lines 1-25); and means for generating a check code to check whether the management information has been tampered with or not, wherein said encrypting means encrypts the check code together with the management information (col 9, lines 40-50).

Daughter does not explicitly disclose “encrypting means for encrypting said management information, said encrypting means encrypting a lower layer of the management information by using a key contained in an upper layer of the management information; and



Art Unit: 2135

decrypting means for decrypting the lower layer of the encrypted management information by using the key contained in the upper layer of the management information”.

Tuttle discloses encrypting means for encrypting said management information, said encrypting means encrypting a lower layer of the management information by using a key contained in an upper layer of the management information (col 6, lines 10-20); and

decrypting means for decrypting the lower layer of the encrypted management information by using the key contained in the upper layer of the management information (col 6, lines 30-45).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Daughters such that information is encrypted. One of ordinary skill in the art would have been motivated to do this because it would prevent unauthorized access to the data stored in the ROM (col 6, lines 40-68).

#### *Prior Art*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 5715431 issued to Everett, David B. et al. Everett discloses a method of writing data to non-volatile memory such as electrically erasable programmable read only memory (EEPROM) in a smart card provides a write status region of EEPROM which is examined on each reset of the card. If the preceding write operation was unsuccessful, perhaps because of deliberate manipulation of the card, a recovery procedure is implemented. If recovery is successful, the card operation can be run. Otherwise the card is unusable.

Art Unit: 2135

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monplaisir G Hamilton whose telephone number is (703) 305-5116. The examiner can normally be reached on Monday - Friday (8:00 am - 4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y Vu can be reached on (703) 305-4393. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Monplaisir Hamilton

  
